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Examiner: Jyoti Chawla  
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CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this date.

JUL 26 2006

Date

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TRANSMITTAL OF PRIORITY DOCUMENT

Dear Sir or Madam:

A claim of priority under 35 U.S.C. §119 has been filed in the above-identified application. Enclosed for filing is a Certified Copy of the priority document, European Application No. 02019145.8, filed August 30, 2002.

Respectfully submitted,

Fitch, Even, Tabin & Flannery

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JUL 26 2006

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**Europäisches  
Patentamt**

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des brevets**

**Bescheinigung**

**Certificate**

**Attestation**

Die angehefteten Unterlagen stimmen mit der ursprünglich eingereichten Fassung der auf dem nächsten Blatt bezeichneten europäischen Patentanmeldung überein.

The attached documents are exact copies of the European patent application described on the following page, as originally filed.

Les documents fixés à cette attestation sont conformes à la version initialement déposée de la demande de brevet européen spécifiée à la page suivante.

**Patentanmeldung Nr.    Patent application No.    Demande de brevet n°**

02019145.8

Der Präsident des Europäischen Patentamts;  
Im Auftrag

For the President of the European Patent Office

Le Président de l'Office européen des brevets  
p.o.

**R C van Dijk**

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Anmeldung Nr:  
Application no.: 02019145.8  
Demande no:

Anmeldetag:  
Date of filing: 30.08.02  
Date de dépôt:

Anmelder/Applicant(s)/Demandeur(s):

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ALLEMAGNE

Bezeichnung der Erfindung/Title of the invention/Titre de l'invention:  
(Falls die Bezeichnung der Erfindung nicht angegeben ist, siehe Beschreibung.  
If no title is shown please refer to the description.  
Si aucun titre n'est indiqué se référer à la description.)

Crunchy wafer product

In Anspruch genommene Priorität(en) / Priority(ies) claimed /Priorité(s)  
revendiquée(s)  
Staat/Tag/Aktenzeichen/State/Date/File no./Pays/Date/Numéro de dépôt:

Internationale Patentklassifikation/International Patent Classification/  
Classification internationale des brevets:

A23G/

Am Anmeldetag benannte Vertragstaaten/Contracting states designated at date of  
filing/Etats contractants désignées lors du dépôt:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

As requested, the entries pertaining to the applicant of the above-mentioned European patent application /  
to the proprietor of the above-mentioned European patent have been amended to the following:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK  
TR  
Kraft Foods R & D, Inc.  
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The registration of the changes has taken effect on 14.09.05.

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Crunchy Wafer Product

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State of the Art

The present invention relates to wafer-based confectionery products which in general comprise two outer wafer layers, optionally one or more inner wafer layers and cream fillings in between. Such wafer-based confectionery products are widely known and well accepted consumer products.

The wafer layers are made from commonly known batter compositions which comprise for example wheat flour, salt, vegetable oil, Lecithin, sodium bicarbonate and water. The wafer layers must have a crunchy texture in order to achieve consumer acceptance. The disadvantage of known wafer-based confectionery products is that the crunchy texture of the wafer layers becomes doughy upon continued chewing. Therefore, there is a demand for improved wafer-based confectionery products.

It is the object of the present invention to provide new wafer-based confectionery products which have a crunchy texture not only at the beginning of consumption, but maintain their crunchy texture upon continued chewing.

Summary of the Invention

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The object of the present invention is achieved by a confectionery product comprising two outer wafer layers, optionally one or more inner wafer layers and cream fillings between the wafer layers, wherein the wafer layers are made from a material which includes cocoa powder.

It was surprisingly found that the use of cocoa powder in the batter recipe for the wafer layers improves the crunchy texture of the confectionery product such that the crunchy texture is maintained even upon continued chewing compared  
5 with known wafer-based confectionery products which lose their crunchiness after being chewed only twice or three times because the wafer layers become doughy.

### Detailed Description of the Invention

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The present invention is based on the discovery that wafer layers which contain cocoa remain crunchy upon continued chewing. They do not lose the crunchy texture after being chewed twice or three times as is the case with the known  
15 wafer-based products which do not contain cocoa within the wafer layers.

The wafer-based confectionery products which are available on the market are relatively small in size compared with the form  
20 and dimensions of a regular chocolate bar. It was found within the present invention that the eating pleasure and the product performance with respect to its crunchiness is greatly improved if the dimensions of the wafer-based confectionery product are increased. Therefore, the products of the present  
25 invention preferably have the form and dimensions of a regular chocolate bar. Regular chocolate bars normally have the following dimensions:

length: about 90 mm,  
width: about 30 mm,  
30 height: about 21 mm.

No such wafer-based confectionery product is available on the market.

The products of the present invention preferably have six or  
35 seven wafer layers and correspondingly five or six cream filling layers. Furthermore, the products of the invention are preferably enrobed with chocolate.



Batter recipes for making wafer sheets are widely known in the prior art. A common wafer batter comprises for example wheat flour, salt, vegetable oil, Lecithin, sodium bicarbonate and water. For example, the following batter recipe can be used  
5 for making the wafer sheets according to the present invention:

	Water	54-58% by weight
	Wheat flour	36-39% by weight
10	Salt	0.6-0.9% by weight
	Vegetable oil	1.5-1.8% by weight
	Lecithin	0.2-0.3% by weight
	Sodium bicarbonate	0.05-0.07% by weight
	Cocoa powder	1-10% by weight

15

The cocoa powder is preferably used in amounts of 2-8% by weight, especially 3-6% by weight.

The cocoa powder can be of any origin. Preferably Ivory Coast  
20 cocoa powder is used.

In a first step for producing the wafer-based confectionery products of the present invention, the ingredients of the batter recipe are mixed together in any convenient mixing  
25 device. The viscosity as measured in a Ford Cup like viscosimeter should be about 39-42 sec (flow out time) at 18 to 20°C.

The obtained batter is then used for baking wafer sheets in a  
30 commonly used wafer baking equipment. The wafer sheets have dimensions which are designed according to the requirements of the end product. Because of the cocoa content, the weight of the wafer sheets increases to some extent. Based on a wafer area of 1,300 cm<sup>2</sup> and a wafer thickness of 3.0 mm, the weight  
35 increases up to about 60 g compared with 54 g for corresponding wafer sheets containing no cocoa powder. The moisture

content of the wafer sheets should be about 0.8 to 1.2% by weight.

The wafer sheets are then spread with cream and stacked on top  
5 of each other as per product format. This form is called a wafer book.

Any known or useful cream can be used for the cream fillings. There is no limitation whatsoever except that the cream  
10 viscosity must be such that the cream can be set at ambient temperatures.

As the next step, the wafer book is cooled to set the cream before cutting. Afterwards, the wafer book is divided into a  
15 prescribed number of pieces in a common cutting station. Then, after cutting, the wafer pieces are enrobed with chocolate and then cooled, for example, in a cooling tunnel, to set the final crystal structure of chocolate.

20 Finally, the product is packaged according to common standard procedures in any suitable foil.

The following example is illustrative of the invention and is not intended as limiting.

25

#### Example

As a first step in the production of the new wafer-based  
30 confectionery product, wafer sheets were produced from the following materials including dark cocoa powder:

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	Water	75.00 kg
	Wheat flour	50.00 kg
	Salt	1.00 kg
	Vegetable oil	2.20 kg
5	Lecithin	0,35 kg
	Sodium bicarbonate	0.08 kg
	Cocoa powder (10/12 alkanized)	5.00 kg
	Total batch	133.63 kg

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To produce the batter, the ingredients were mixed in a Hebenstreit mixer according to the following procedure:

	<u>Ingredients</u>	<u>Mixing time</u>
15	Water (1/2) Sodium bicarbonate Salt	15 sec.
20	Wheat flour Cocoa powder Water (1/2)	60 sec.
25	Lecithin Vegetable oil	60 sec.

The viscosity of the batter was 39 sec.

30 Wafer sheets were baked from the obtained batter in a common wafer baking equipment. Baking time was 1.8 minutes. The weight of the wafer sheets increased to  $61 \pm 2$  g per  $1,300 \text{ cm}^2$  (from 54 g without cocoa powder). The moisture content was 0.9% by weight.

35 The wafer sheets were then spread with cream and stacked on top of each other to produce the so-called wafer book, which was cooled afterwards to set the cream before cutting. The wafer book was then divided into the prescribed number of pieces in the cutting station. The obtained wafer bars were  
40 enrobed with chocolate and conveyed to a cooling tunnel to set the final chocolate crystal structure.

The wafer products had the following form and dimensions:

6 layers of wafer sheet  
5 layers of cream filling  
Milk chocolate coating  
Length: 92 mm  
Width: 30 mm  
Height: 21 mm

5

10 When compared with commercially available wafer-based confec-  
tionery products, the wafer products of the present invention  
had an excellent crunchy texture and maintained the  
crunchiness upon continued chewing. The commercially  
available wafer-based confectionery products lost their  
15 original crunchiness upon chewing and became doughy.

Claims

1. Confectionery product comprising two outer wafer layers,  
5 optionally one or more inner wafer layers and cream  
fillings between the wafer layers, characterized in that  
the wafer layers are made from a batter material which  
includes cocoa powder.
- 10 2. Confectionery product according to any of the preceding  
claims, wherein the product has the form and dimensions of  
a regular chocolate bar.
3. Confectionery product according to any of the preceding  
15 claims wherein the product includes 6 or 7 wafer layers  
and correspondingly 5 or 6 cream filling layers.
4. Confectionery product according to any of the preceding  
claims wherein the product is enrobed with chocolate.

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Crunchy Wafer Product

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Abstract

The invention relates to a confectionery product comprising two outer wafer layers, optionally one or more inner wafer layers and cream fillings between the wafer layers, wherein  
10 the wafer layers are made from a material which includes cocoa powder. The cocoa wafer layers improve the crunchy texture of the confectionery product.

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